

**I CLAIM AS MY INVENTION:**

1. A catheter for magnetic navigation in a human body by interacting with an external magnetic field, said catheter comprising:

an elongated catheter body terminating in a catheter tip;

a magnet disposed at said catheter tip adapted to interact with said external magnetic field to move said catheter to a desired position in a human body; and

a plurality of separated, independently controllable electromagnets disposed along said catheter body.

2. A catheter as claimed in claim 1 wherein said magnet at said catheter tip is a permanent magnet.

3. A catheter as claimed in claim 1 wherein said magnet at said catheter tip is an electromagnet.

4. A catheter as claimed in claim 1 wherein said electromagnets are respectively controlled with a synchronously-clocked current.